



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,278	02/12/2002	Stanley J. Swartzel	444800-033	4957

33375 7590 03/11/2004
THOMPSON HINE LLP
2000 COURTHOUSE PLAZA N.E.
10 WEST SECOND STREET
DAYTON, OH 45402-1758

EXAMINER

MULLEN, THOMAS J

ART UNIT	PAPER NUMBER
----------	--------------

2632

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074,278

Applicant(s)

SWARTZEL ET AL.

Examiner

Thomas J. Mullen, Jr.

Art Unit

2632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 (as renumbered) is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-26 and 31 is/are rejected.
- 7) ☒ Claim(s) 27-30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2,3.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Art Unit: 2632

The following guidelines illustrate the preferred layout for the specification of a utility application.

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. **Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading.** If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825).

Applicant's specification places the "Brief Description of the Drawings" section before the "Summary" section (rather than after); the section headings are not in all upper case letters (except for the "Brief Description of the Drawings"); and some of the headings differ from those suggested above (e.g., "Cross References" instead of "Cross-Reference to Related Applications"). At the very least, the section headings should be amended to appear in all upper case letters, without underlining or bold type, as set forth in 37 CFR 1.77(b).

1. The disclosure is objected to because of the following informalities:
 - in the Title, "Protocal" should be --Protocol--;
 - in the Brief Description of the Drawings, there is no "Brief Description" of Fig. 6;
 - page 8, third line from bottom, it appears that after "embodiment" should be inserted --of-

--;

page 9, line 10, it appears that after "there" should be inserted --is--;
page 9, line 11, it appears that "110K" should be --110A--;
page 9, line 20, one of the terms "the" and "a" should be deleted; and
page 13, line 23, "personal" should be --personnel--.

Also, starting at page 11, line 6, it is unclear whether the discussion of "Virtual Tag Operation", "Virtual Tag Displays", etc., refers to particular elements shown in the drawings-- e.g., it is unclear if " 'virtual tags' " (p. 11, line 7) refers to elements 110A-D in Fig. 3, and if "(virtual tag) 'regions'" (p. 11, line 16) refers to element 110 in Fig. 6. If so, appropriate reference numerals should be added to p. 11 of the specification to properly identify these elements.

Appropriate correction is required.

2. The drawings are objected to because lead lines are needed for reference numerals 27, 30 (left-most occurrence) and 423 (three occurrences), all in Fig. 1.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 4300 (page 5, next-to-last line).

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "RFID tags" (associated with either a "product" or a "consumer") must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. Applicant is notified that the application as filed contained two claims numbered "24". In accordance with 37 CFR 1.126, the second claim numbered "24" and the claims following that claim have been renumbered from 24-30 to 25-31, respectively. Thus, claims 1-31 are pending, of which claims 1, 5, 7, 10, 12, 19, 25 and 26 are independent.

Art Unit: 2632

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 7-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The disclosure fails to adequately define what is meant by a "plan-o-gram", i.e. what type of data constitutes "plan-o-gram information", and it is unclear which of the disclosed elements (e.g. in Fig. 2) includes the "database" for such information. Further, the nature of the "automated sales or profit optimization scheme" used to generate a plan-o-gram database is not fully and clearly set forth.

The disclosure and claims 7 and 10 further use terms which appear to be related to "plan-o-gram"--"facing input mode", "product facing width and position", "facing set up margins", etc. However, the disclosure fails to adequately define what this "facing" refers to, and thus the phrases using this term cannot be understood.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 12-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The dual use of the term "tag" to define two distinctly different elements, i.e. "electronic display tag" and "RF ID tags", is confusing and renders the claims indefinite, and it is particularly unclear whether later references to "the tag" (e.g. claim 12, line 7) refer to the "display tag" or to the "RFID tags".

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 12-13, 15, 19-20, 22, 26 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Can et al (US 2002/0038267, effective date 9/5/00) in view of any of Gelbman (US 2002/0167500, effective date 2/7/01), Failing et al (US 5448226, cited by applicant), Barford (US 5539393) or Davis et al (US 4766295).

See especially Figs. 1, 6 and 7, the Abstract, and specification paragraphs 93-96 (page 7) in Can et al. Referring to Fig. 6, Can et al discloses "collections of merchandise" (610,614,618,622), each piece of merchandise having its own RFID tag (see e.g. Figs. 1 and 3 and specification paragraphs 12, 56 and 63), the merchandise being disposed on shelves (602,604,606), and positioned beneath the shelves adjacent to respective "collections" are RFID readers (608,612,616,620). The readers interrogate the tags to "collect inventory information" which is then transmitted to wireless device 702 (Fig. 7) carried by store personnel, in order for the personnel to determine "which items need to be replenished". Thus as to claims 12, 19 and 26, Can et al disclose shelf-mounted RFID devices (i.e., readers 608,612,616,620), implicitly including "RF transceiver means" for communicating with the RFID tags, and a controller ("host computer", Fig. 1) operable for communication with the readers (see e.g. specification paragraph 15); the controller and shelf-mounted RFID devices implicitly operate in a "product stock check mode" in which the shelf-mounted devices transmit a localized (interrogation) signal for detecting the RFID tags associated with respective pieces of merchandise, and the shelf-mounted devices (in conjunction with the controller) implicitly determine how many items of a particular type of merchandise are present, such that the shelf-mounted devices and/or the controller implicitly initiate a "restock check signal" when the number of detected RFID tags associated with a particular type of merchandise falls below a set threshold. (The particular number of items corresponding to the "set threshold" would clearly be determined by store personnel based

on various factors.) In particular, the "restock check signal" is sent to wireless device 702 used by personnel to monitor inventory conditions and determine when restocking is needed. Can et al further teaches that the various readers (608,612,616,620) are "associated physically with...particular locations", such that the person(s) using wireless device 702 (i.e. an "identified user") will be alerted as to "where the merchandise (needing replenishment) is located within Shelf System 602" (paragraph 95).

Thus, Can et al teaches all the subject matter of claims 12, 19 and 26 except for the shelf-mounted RFID devices being (or including) an "electronic display tag" which provides customers with data pertaining to the particular merchandise associated with the tag (e.g. price). However, it is well known to those skilled in the art that in the "retail setting" environment of Can et al, wherein "customers" are viewing and potentially buying the various types of merchandise on the shelves, the use of an "electronic display tag" can greatly facilitate informing the customer of the real-time-updated price of the items, of particular items which are at a "sale" price, and/or provide advertizing-type messages to the customer of the same or related items, etc. For example, each of Gelbman (see e.g. Fig. 9), Failing et al (e.g. Fig. 2), Barfod (e.g. Figs. 4-5) and Davis et al (e.g. Fig. 1) teach using electronic display tags in a "retail" environment for some or all of these, or other, purposes. In view of any of Gelbman, Failing et al, Barfod or Davis et al, it would have been obvious to combine, or supplement, the RFID readers (608,612,616,620) of Can et al with corresponding "electronic display tags" for the various types of merchandise on the shelves, as recited in claims 12, 19 and 26.

Regarding claims 13 and 20, wireless device 702 of Can et al is an "electronic device associated with a specific user".

Regarding claims 15 and 22, as discussed above Can et al teaches indicating the "location" of the product needing restocking.

Regarding claim 31, the signal sent to wireless device 702 implicitly "identifies" the product in need of replenishment.

10. Claims 14, 16-18, 21, 23-24 and 27-30 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, set forth in this Office action (as applicable) and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 2632

Claims 7-11 and 25 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.

Claims 1-6 are allowed.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


The art cited by applicant has been considered. Goff et al (US 6335686) discloses a system analogous to Can et al, with "antenna shelf tape" mounted on shelves for reading RFID tags mounted to articles. The patent based on related application 09/784,359 (Swartzel et al US 6552663) is made of record. Ludtke (US 2002/0138372, effective date 12/11/00) discloses a product transmitter communicating with a PDA carried by a customer. Corden et al (US 4738042) and Karp disclose scrollable displays associated with merchandise. Brick et al (US 6269342) and Failing et al (US 5241467) disclose electronic display tags and systems with "plan-o-gram" and/or "facings" information.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Mullen, Jr. whose telephone number is 703-305-4382. The examiner can normally be reached on Monday-Thursday from 6:30 AM to 4 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu, can be reached on (703) 308-6730. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

TJM


Thomas J. Mullen, Jr.
Primary Examiner
Art Unit 2632